

## CLAIMS

1. A process for producing soybean protein, which is comprises heating a solution containing the soybean protein under acidic conditions, and then fractionating it into a  
5 soluble fraction and an insoluble fraction at an ionic strength of 0.02 or more and pH of 4.5 or higher but lower than 5.6.

2. The process according to claim 1, wherein the  
solution containing the soybean protein is an aqueous  
10 slurry of defatted soybeans, defatted soybean milk obtained from the slurry, a slurry of acid-precipitated soybean protein, or a solution of soybean protein isolate.

3. The process according to claim 1, wherein the acidic conditions are those at pH 3.8 to 6.8.

15 4. The process according to claim 1, wherein the heating is performed at 30 to 75°C.

5. The process according to claim 1, which further comprises fractionating 7S globulin protein from the  
soluble fraction obtained by the fractionation in claim 1,  
20 wherein a ratio of 7S globulin/(11S globulin + 7S globulin)  
of said 7S globulin protein is 0.5 or more, and a content  
of a polar lipid extracted by a mixed solvent of chloroform  
and methanol (chloroform : methanol = 2 : 1) in the solid  
content of said 7S globulin protein is 1% by weight or less.

25 6. 7S Globulin protein obtained by the process

according to claim 5, whose phytic acid content is 1.2% by weight or less in the solid content.

7. The process according to claim 1, which further comprises fractionating 11S globulin protein from the  
5 insoluble fraction obtained by the fractionation in claim 1, wherein a ratio of 11S globulin/(11S globulin + 7S globulin) of said 11S globulin protein is 0.7 or more, and a content of a polar lipid extracted with a mixed solvent of chloroform and methanol (chloroform : methanol = 2 : 1)  
10 in the solid content of said 11S globulin protein is 2% by weight or less.

8. 11S Globulin protein obtained by the process according to claim 7, whose phytic acid content is 1.2% by weight or less in the solid content.